**Factor Xa Inhibitors**

Mechanism of Action: This medication class blocks the action of Factor Xa, a blood protein that causes the formation of blood clots.

<table>
<thead>
<tr>
<th>Medications</th>
<th>Dosing/Applications</th>
<th>Side Effects</th>
<th>Drug Interactions</th>
<th>Warnings/Contraindications</th>
<th>Additional Information</th>
</tr>
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<tbody>
<tr>
<td>Rivaroxaban (Xarelto)</td>
<td>(Avoid if creatinine clearance is less than 30 mL/min)</td>
<td>Common: Bleeding, dizziness, fainting, rash, blisters, fainting, muscle spasm, and bruising.</td>
<td>Drugs that cause increased levels of Xarelto and may cause bleeding: Ketoconazole, Norvir (ritonavir), Kaletra (lopinavir/ritonavir), Crixivan (indinavir), Biaxin (clarithromycin), Erythromycin, Diflucan (fluconazole), Sporanox (itraconazole)</td>
<td>Bleeding, liver impairment, renal impairment, valvular disease, elderly patients, and surgery or invasive procedures.</td>
<td>Cost: $27 per 10 mg tablet. Antidote: None. Off-label use: activated prothrombin complex concentrate (PCC) or Recombinant factor VIIa (rFVIIa), or activated charcoal within 2 hours. Dose dependent on kidney function.</td>
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<tr>
<td></td>
<td>Prevention of stroke and blood clots in patients with nonvalvular atrial fibrillation 15 or 20 mg daily with evening meal</td>
<td>Serious: Major bleeding and severe allergic reactions.</td>
<td>Drugs that cause the breakdown of Xarelto in the liver and may reduce its effect: Rifampin, St. John’s Wort, Tegretol (carbamazepine), Dilantin (phenytoin).</td>
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<td></td>
<td>Prevention of blood clots in leg veins (deep vein thrombosis or DVT) and in the lungs (pulmonary embolism or PE): 10 mg daily. Use for 12 days after knee replacement surgery or 35 days after hip surgery.</td>
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<td></td>
<td>Treatment of DVT or PE: 15 mg twice daily for 21</td>
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</table>
### Apixaban

**Eliquis**

- **Prevention of stroke and blood clots in patients with nonvalvular atrial fibrillation**
  - 5 mg orally twice daily
  - The recommended dose is 2.5 mg twice daily for patients with \( \geq 2 \) of the following:
    - Age \( \geq 80 \) years
    - Weight \( \leq 60 \) kg
    - Serum creatinine \( \geq 1.5 \) mg/dL
- **Prevention of DVT or PE after hip or knee surgery:** 2.5 mg twice daily for 12 days after knee replacement surgery or 35 days after

### Common:
- bruising
- bleeding
- nausea
- anemia

### Serious:
- severe allergic reactions and active bleeding

### Drugs that cause increased levels of Eliquis and may cause bleeding:
- Ketoconazole, Norvir (ritonavir), Biaxin (clarithromycin), Diflucan (fluconazole), Sporanox (itraconazole)

### Drugs that cause the breakdown of Xarelto in the liver and may reduce its effect:
- Rifampin, St. John’s Wort, Tegretol (carbamazepine), Dilantin (phenytoin).

### Medications that may increase risk of bleeding:
- Aspirin, NSAIDs (ex. Ibuprofen, naproxen), warfarin, heparin, Plavix (clopidogrel), effient (prasugrel), Brilinta (ticagrelor)

### BBW:
- Increased risk of clots if Eliquis is stopped suddenly

### Pregnancy category:
- B

### Cost:
- $5 per 5 mg tablet

### Antidote:
- None.

### Off-label use:
- May use PCC, rFVIIa, or activated charcoal within 2 hours.

### Discontinue:
- 24 to 48 hours before surgery
<table>
<thead>
<tr>
<th>Drug</th>
<th>DVT and PE prevention:</th>
<th>DVT and PE treatment:</th>
<th>Common:</th>
<th>Drugs that cause increased levels of Arixtra and may cause bleeding:</th>
<th>Serious:</th>
<th>Cost:</th>
<th>Antidote:</th>
<th>BBW:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fondaparinux (Arixtra)</td>
<td>Weight ≥ 50 kg only</td>
<td>Weight &lt; 50 kg is 5 mg (sq) subcutaneously daily</td>
<td>Bruising, bleeding, injection site reactions, anemia, increased wound drainage, and nausea.</td>
<td>Medications that may increase risk of bleeding: Aspirin, NSAIDs (ex. Ibuprofen, naproxen), warfarin, heparin, Plavix (clopidogrel), effient (prasugrel), Brilinta (ticagrelor)</td>
<td>Active bleeding, thrombocytopenia, hematoma, post-operative hemorrhage.</td>
<td>Bleeding, thrombocytopenia, renal impairment, and elderly patients.</td>
<td>None.</td>
<td>Spinal/epidural bleeding with anesthesia/spinal puncture</td>
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<td></td>
<td>Weight 50 to 100 kg is 7.5 mg sq daily</td>
<td>Weight &gt; 100 kg is 10 mg daily</td>
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<td>Not recommended in patients who underwent percutaneous coronary intervention.</td>
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<td>Pregnancy Category: B</td>
</tr>
</tbody>
</table>

Edoxaban (Lixiana) is available in Japan
Betrixaban and Idraprarinux are currently in development.